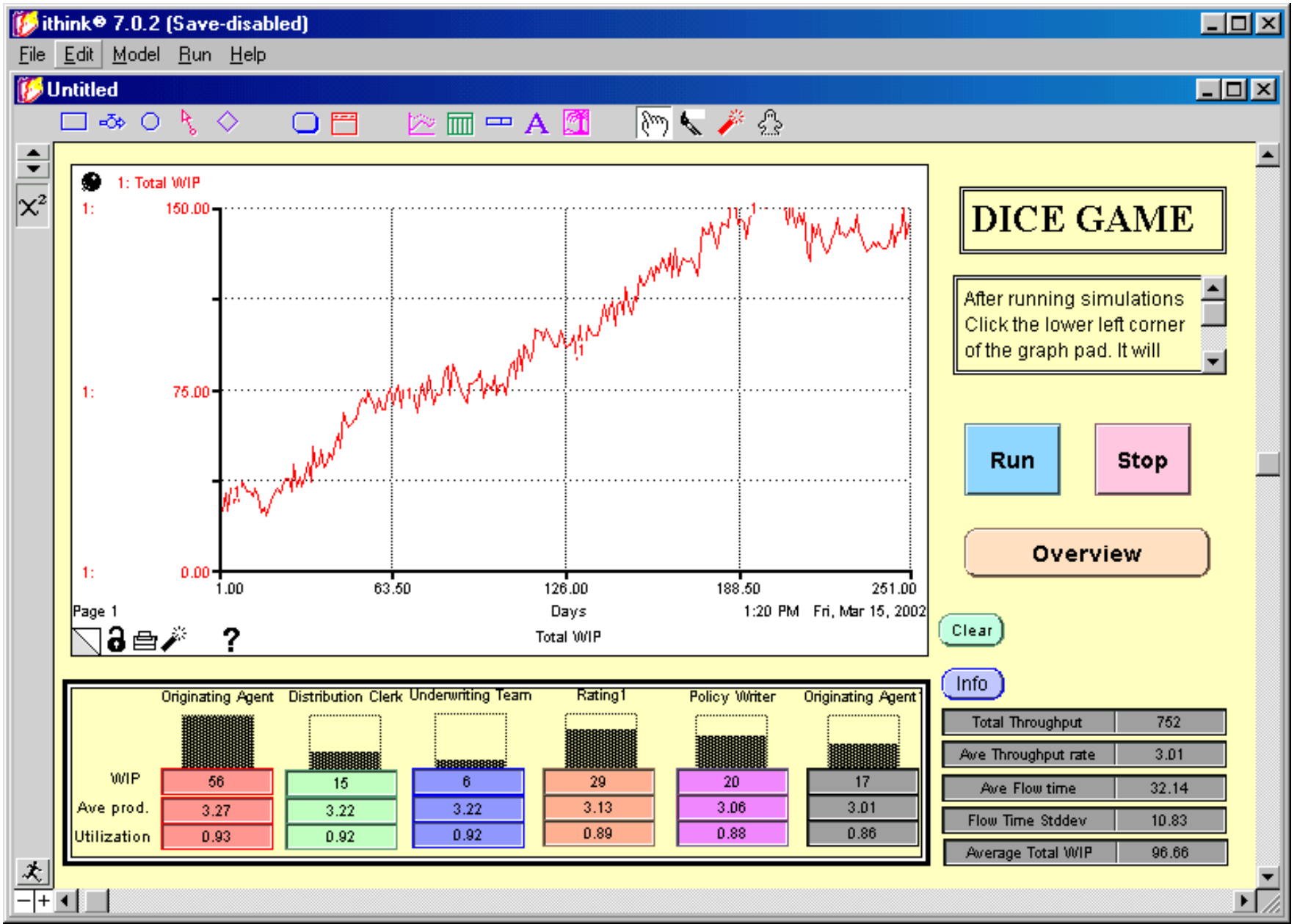
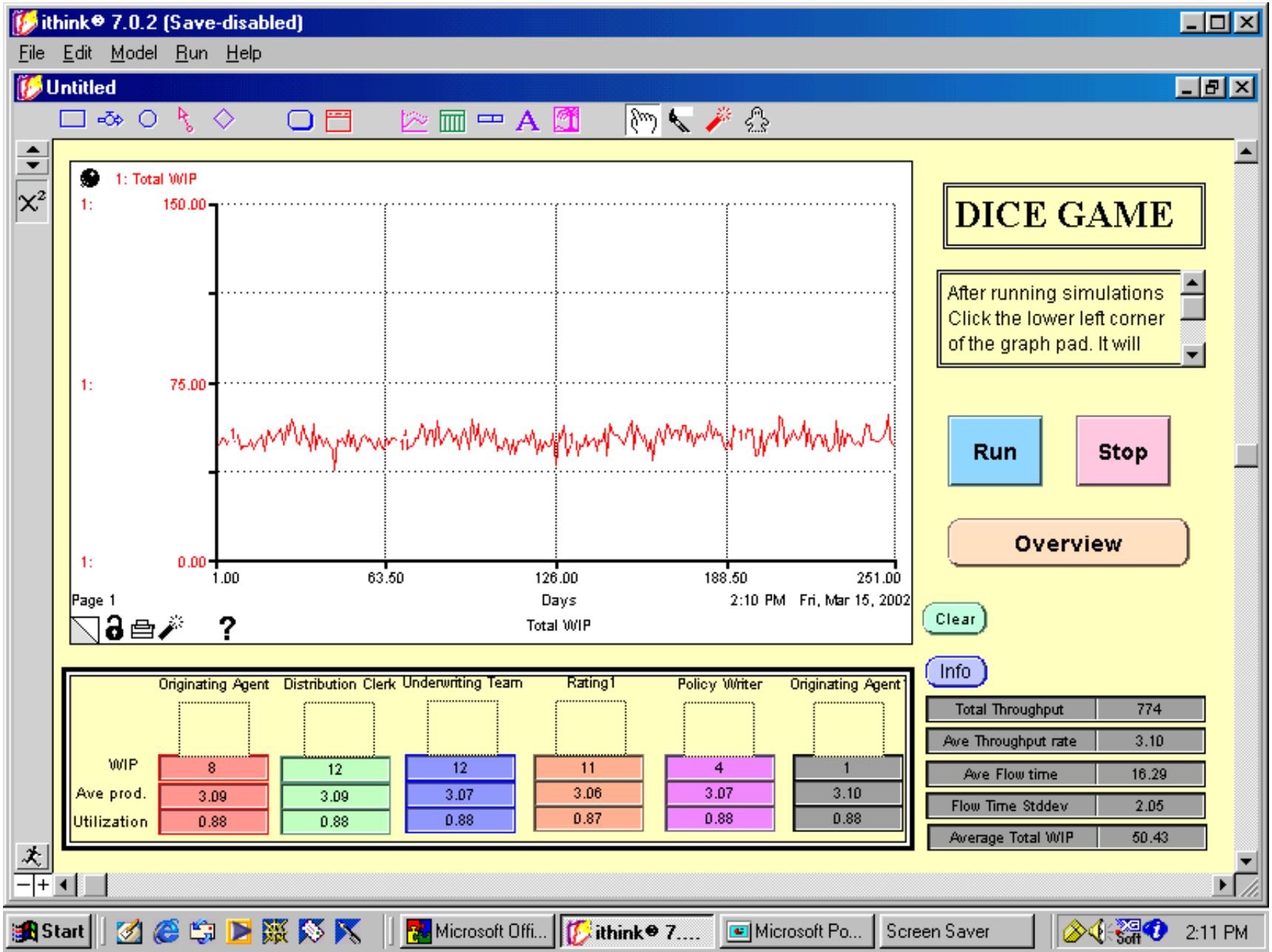
Dice Experiment Run #1

Simulation I: Push



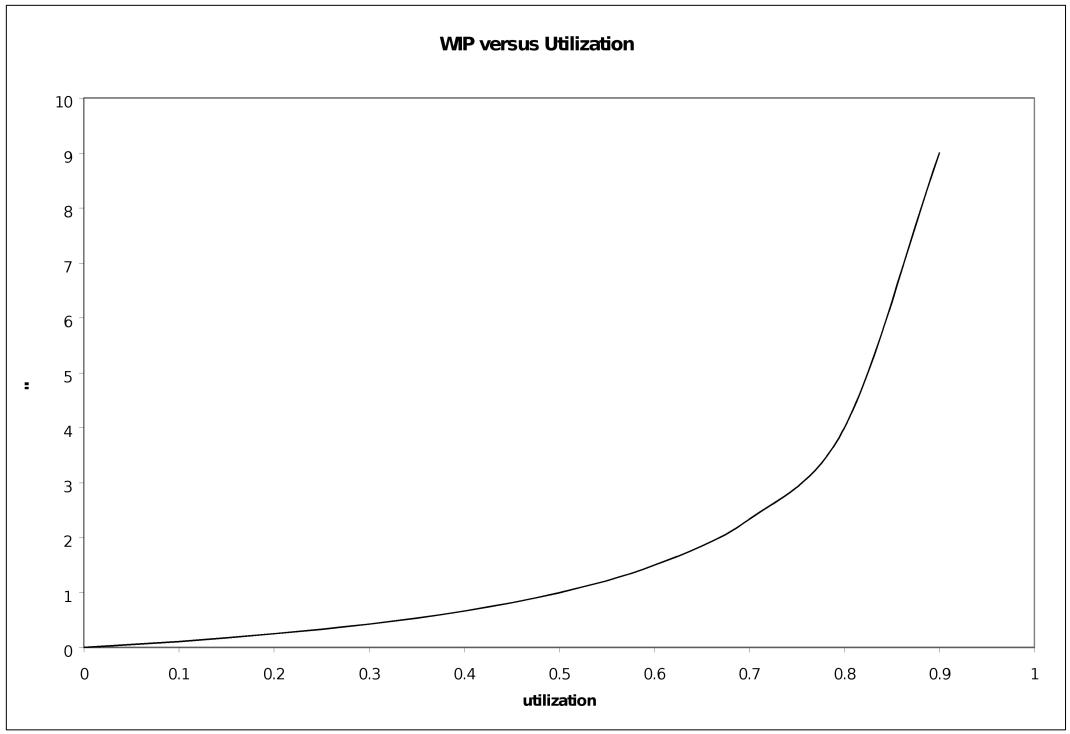
Dice Experiment Run #2

Simulation IIA: Impact of Inventory on Flow



WIP vs. Utilization

- Increasing WIP, increases utilization with diminishing returns and also increases Flow Time.



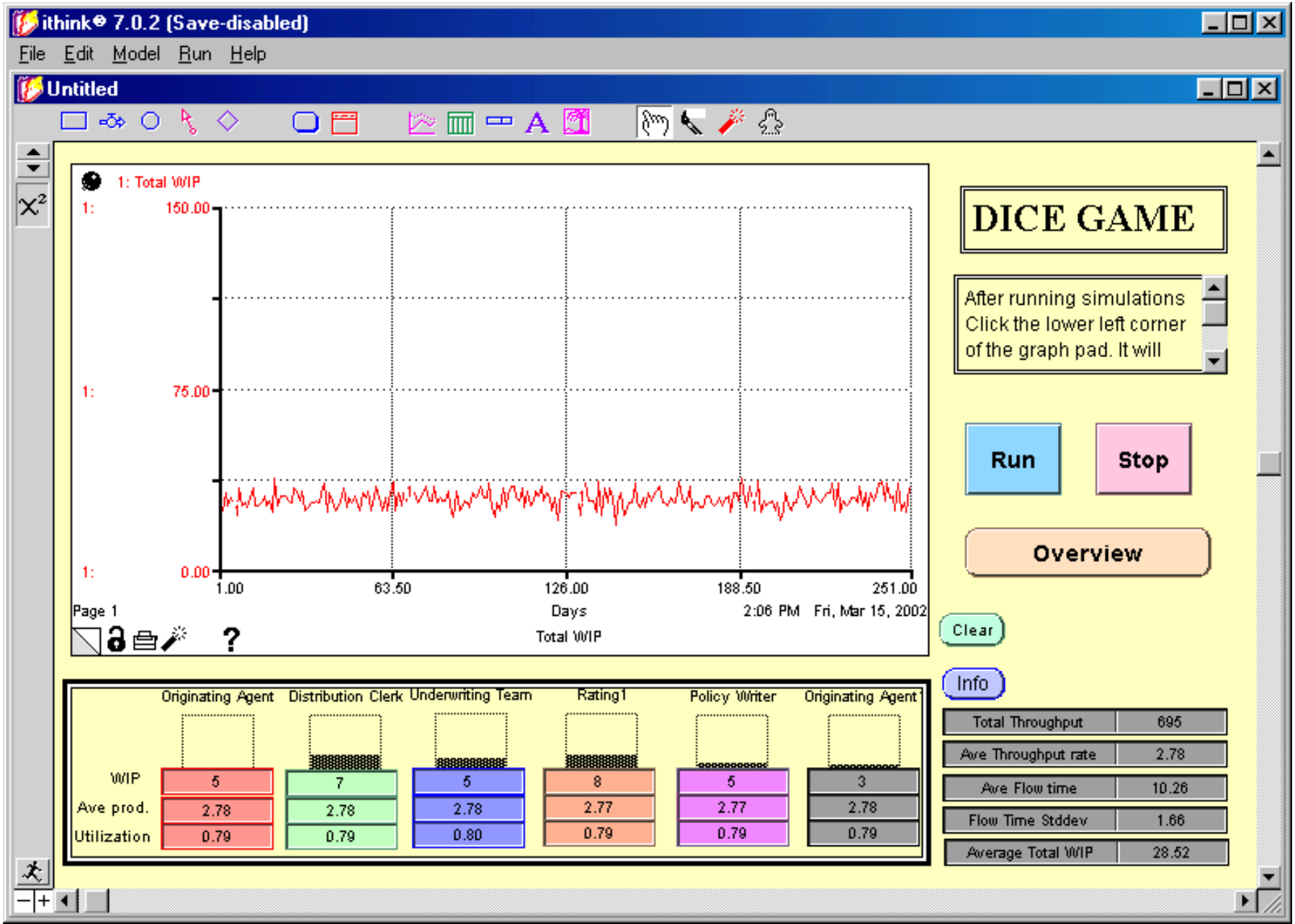
Introduce Pull

How will we control production?

- In a push system
  - Push – work is driven by the schedule
  - We use inventory to cushion us against variation.
  - Upstream directives (the schedule) determine what is to be made, and when.
- In a pull system
  - We use capacity to cushion us against variation.
  - Downstream usage (consumption) determines what is to be made, and when.
  - Pull – Uses a consumption signal Kanban on what is consumed downstream to replenish upstream based.

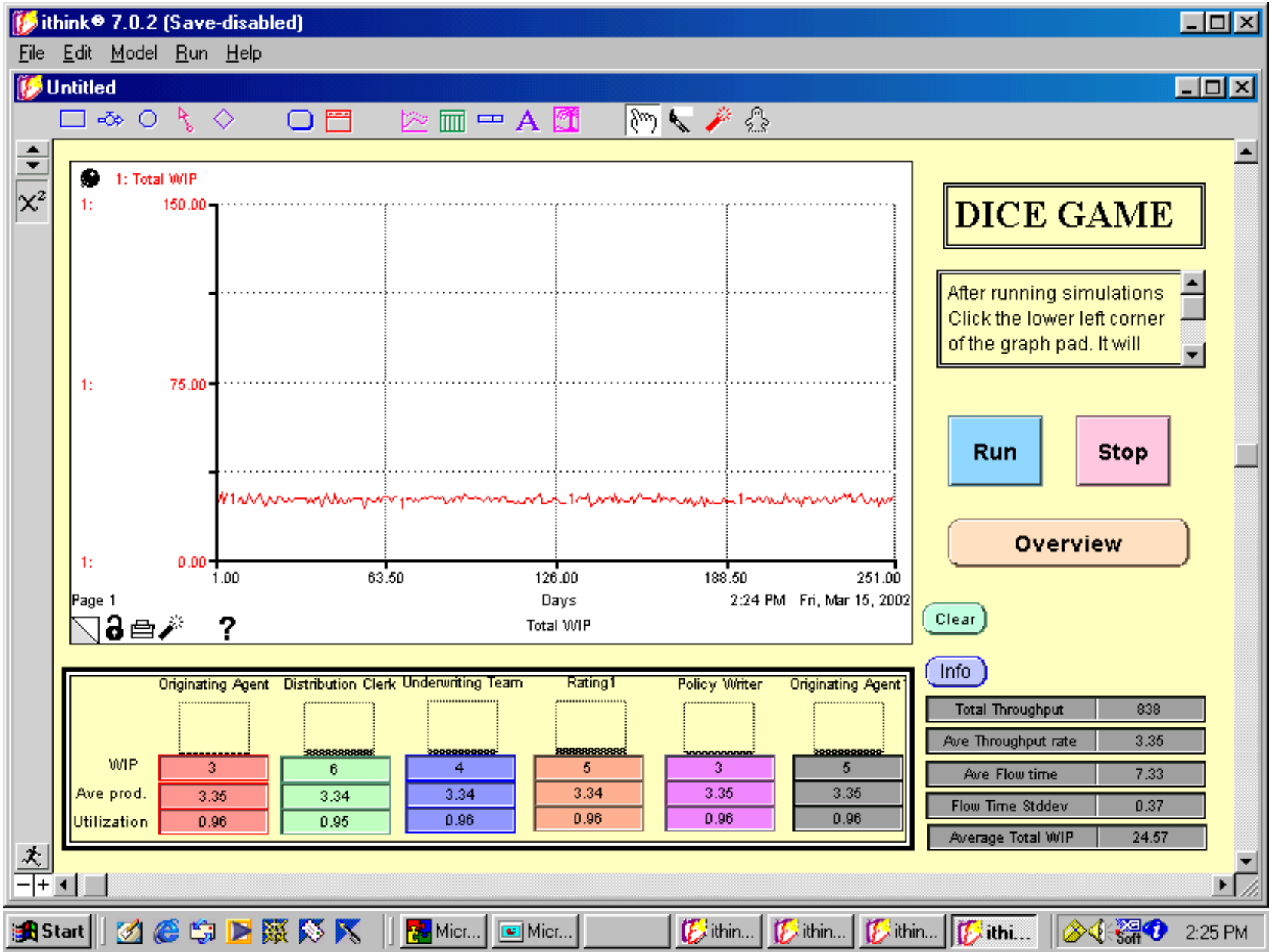
Dice Experiment Run #3

Simulation III: Pull



Dice Experiment Run #4

Simulation IV: Reduced Variation



Return Run #1 / Return Run #2 / Return Run #3 / Return Run #4	Run #1 (Sim I)		Run #2 (No Sim)		Run #3 (Sim III)		Run #4 (Sim IV)	
Teams	Team #1	Team #2	Team #1	Team #2	Team #1	Team #2	Team #1	Team #2
Total Jobs Comp.								
Avg Jobs Comp per Day								
Util @ last Work-Station= Avg Jobs per Day / 3.5								
Ending WIP								
Estimated Flow Time = WIP / Avg Jobs per Day								